

Part 24. Water Hauling Equipment Standards

and

Part 25. Licensing of Water Haulers

Rules promulgated under

The Safe Drinking Water Act

1976 PA 399

and

Suggested Practice

PART 24. WATER HAULING EQUIPMENT STANDARDS

R 325.12401. Purpose

Rule 2401. The purpose of this part is to prescribe standards for tanks and equipment used by water haulers to transport drinking water that shall serve as criteria by which a water hauler may obtain a license for a water transportation tank pursuant to part 25 of these rules.

In some areas of Michigan, water of good quality and adequate quantity is not available. As a result, many individuals must have their water hauled to their homes or businesses. Certain precautions are important to ensure that the water hauled is not contaminated during its transportation and delivery.

R 325.12402. Water transportation tank materials and coatings

Rule 2402. Materials or coatings on a water transportation tank or its appurtenances which come into contact with drinking water shall be of approved steel, stainless steel, fiberglass, metal, plastic, rubber, or other nontoxic materials given written approval by the Michigan Department of Environmental Quality (department). Materials used in the construction of, or transported by, a water transportation tank shall not impart any substances to the water that may result in a violation of the state drinking water standards, or impart other undesirable physical properties to the water.

All tanks are to be of durable construction and be cleanable.

R 325.12403. Water transportation tanks; outlets

Rule 2403. The outlet from a water transportation tank shall be located to provide complete drainage of the tank or any compartment thereof. Outlet valves shall be of sanitary construction and readily cleanable. Valve outlets, unless equipped with a permanent hose, shall be provided with a sanitary cap.

R 325.12404. Manhole covers and openings

Rule 2404. (1) Manhole covers and openings shall be constructed to allow reasonable access for cleaning purposes and to protect the sanitary quality of the water.

(2) Manholes and other openings in the top of the tank shall be higher than the surrounding area and shall be designed to prevent drainage from entering the opening.

A minimum manhole or hatch dimension of 20 inches is recommended.

R 325.12405. Fill Connections

Rule 2405. If used, a fill connection shall be constructed in a manner to prevent contamination and shall be capped at all times when not in use.

The water supplier at a water loading station should provide a fill device arrangement, suspended from a tower and similar to the device shown in Figure 1.

R 325.12406. Baffles

Rule 2406. If used, baffles shall not interfere with free drainage of the water transportation tank. Baffles shall be constructed to allow accessibility to all areas for inspection and cleaning purposes.

Baffles to check or break the force or flow of water in the transportation tank upon braking or stopping in transport are recommended.

R 325.12407. Pumps

Rule 2407. If used, pumps shall be operated in a sanitary manner and all couplings or connections shall be capped or otherwise protected from contamination when not in use.

Pump protection should include a protective housing.

R 325.12408. Transfer hose and piping

Rule 2408. (1) Connections between the pump and the water transportation tank may be made with flexible tubing. Hose connectors shall be attached to the hose to allow easy removal for cleaning.

(2) Transfer hose or piping shall be constructed of nontoxic materials, maintained in a sanitary condition, and used in such a manner to prevent contamination of the water and to prevent cross connections.

(3) If 2 or more lengths of flexible transfer hose are used, they shall be connected either by the use of sanitary couplings or a piece of sanitary tubing with clamps. Sanitary caps shall be furnished for each end of the hose, the pump, and the outlet valve.

A protective housing to enclose the transfer hose and keep it clean and sanitary during travel may be used in lieu of sanitary caps.

(4) A hose carrier bracket shall be provided to adequately support the hose and a means shall be provided to support the loose end of the hose to prevent contamination.

PART 25. LICENSING OF WATER HAULERS

R 325.12501. Purpose

Rule 2501. The purpose of this part is to implement section 18 of the act by specifying certain criteria and requirements for licensing of water haulers and for their containers, equipment, and operation.

To ensure a safe supply of water to homes and establishments requiring hauled water, standards for licensing water hauler containers, equipment, and businesses are necessary.

R 325.12502. License

Rule 2502. A person shall not engage in, or carry on the business of, hauling bulk water for drinking or household purposes, except for his own household use, without a license issued pursuant to the act and these rules. Compliance with this rule may be waived in emergency situations upon approval by the department.

A person who hauls bulk water for drinking or household purposes, except for his own household use, is required to be licensed annually by the department.

Compliance with this rule may be waived in emergency situations. In these situations, the water hauling operation must be short term. Short term means less than a month. For emergencies lasting longer, licensed businesses and equipment should be used. All containers or tanks used in emergency water hauling must be capable of delivering a safe, pure water supply.

R 325.12503. Application for license

Rule 2503. Within two years after the effective date of these rules, a person engaged in the business of hauling water for drinking or household purposes shall apply for a license using a license application form provided by the department.

Applications for obtaining licenses for water hauling businesses and for water transportation tanks are available from the Michigan Department of Environmental Quality, Water Bureau, Drinking Water and Environmental Health Section, Noncommunity Unit, P.O. Box 30273, Lansing, Michigan, 48909-7773, phone 517-241-1370 / fax 517-241-1328. An "Original Application for License" is to be completed and submitted when the water hauling business and transportation tanks are initially licensed. After the first license, a "Renewal Application for License" must be completed on an annual basis.

R 325.12504. Issuance of license

Rule 2504. If the department, after such investigations as it deems necessary, is satisfied that a water hauler has the qualifications and equipment to perform water hauling services in a manner consistent with these rules, it shall issue a license to the water hauler. A license issued pursuant to this rule is not transferable.

Before a water hauler can be issued a license, the department must initiate an investigation to determine that the water hauler has the qualifications and equipment to perform water hauling services in a manner consistent with the rules. This includes; (1) an evaluation of the water hauling transportation tanks and equipment; (2) approval of the water source facilities; (3) determination that the water hauler has knowledge of the use of chlorine for disinfection of water, and; (4) an investigation of other items necessary for proper operation of a water hauling business.

R 325.12505. Source and quality for water; chlorine; storage tanks.

Rule 2505. (1) All water hauled by a water hauler shall meet state drinking water standards and shall be from a public water supply or other source approved by the department.

Generally, the source must meet the requirements imposed on public water supply facilities for construction and monitoring of a Type II public water supply.

- (2) A water hauler shall add chlorine, in an amount specified by the department, when receiving water from a source and upon delivery of the water after hauling. The amount of chlorine to be added in each instance shall be specified on the license issued by the department for the water transportation tank. The department may require chlorine residual tests of the water hauled upon receipt of the water from the source, after addition of chlorine, and at delivery of the water. At the point of delivery of the water, a free chlorine residual of 1.0 mg/l is required. The department may approve an alternate means of disinfection upon written request by a water hauler.

The amount of chlorine to be added to a water hauling tank filled to capacity is to be determined by the department and will be specified on the license card issued for the water transportation tank. This amount of chlorine is to be added when receiving water from a source. In most cases, chlorine will not have to be added upon delivery. A table relating tank size and the amount of chlorine to be added generally used by the department is included here.

When the source of the water to be hauled is a chlorinated municipal supply, chlorine amounts to be added to the hauling tank less than those shown in the table may be required by the department. The amount specified will be sufficient to provide the required free chlorine residual of 1.0 mg/l. Chlorine residual determinations will not be required of the water hauler unless the amount of chlorine added is changed from trip to trip based on variable chlorine demand of the source water or variable chlorine residual at a chlorinated municipal source.

WATER HAULING VEHICLE

CHLORINE REQUIREMENT

Tank Volume (Gallons)			Swimming Pool Type Liquid Chlorine ¹	Household Bleach ² or Stock Solution ³
1	to	2	2 drops	4 drops
3	to	4	5 drops	10 drops
		5	10 drops	20 drops
6	to	75	*	*
76	to	150	1/2 tbsp	1 tbsp
151	to	300	1 tbsp	2 tbsps
301	to	500	2 tbsps	4 tbsps
501	to	750	3 tbsps	6 tbsps
751	to	1,000	1/4cup	1/2 cup
1,001	to	1,200	1/3 cup	2/3 cup
1,201	to	2,000	1/2cup	1 cup
2,001	to	2,500	2/3 cup	1-1/3 cups
2,501	to	3,000	3/4 cup	1-1/2 cups
3,001	to	4,000	1 cup	2 cups
4,001	to	4,700	1-1/3 cups	2-1/2 cups
4,701	to	5,600	1-1/2 cups	3 cups
5,601	to	6,500	1-2/3 cups	3-1/2 cups
6,501	to	7,500	2 cups	4 cups

Chlorine dosages in this table are calculated to obtain a free available chlorine residual between 1.0 and 3.0 parts per million (ppm or mg/l) when no chlorine demand is present in the water source. Chlorine is added in drops, tablespoons (tbsps) or cups, as appropriate.

*For chlorine requirements for tanks sized form 6 to 75 gallons – contact the Noncommunity Unit, Ground Water Supply Section, Drinking Water and Radiological Protection Division, Michigan Department of Environmental Quality.

1. Sodium Hypochlorite at 10 percent available chlorine. Chlorine of this type is available under the trade names – “Sun Chlorine”, “Sunny Sol ‘150””, and others.
 2. Sodium Hypochlorite at 5-1/4 percent available chlorine. Chlorine of this type is available under the trade names – “Chlorox”, “Roman Cleanser”, “Cindy Liquid Bleach”, and others.
 3. Stock solution consists of 4 pounds of calcium hypochlorite (65 percent available chlorine) dissolved in five gallons of water. Calcium hypochlorite is sold under trade names – “HTH”, “Perchloron”, “Pitchlor”, and others.
- (3) When transporting water to a public water supply, a water hauler shall deliver water only to tanks or facilities approved by the department.

The department will review hauled water receiving tanks at public water supplies. If specific tanks or facilities are inappropriate for storing or distributing potable water, the hauler will be notified.

R 325.12506. Licensing of water hauler's transportation tanks

Rule 2506. (1) All tanks used to transport or to carry water shall be licensed annually by the department.

(2) At the same time a water hauler applies for a water hauling license pursuant to R 325.12503, an application for a license for each water transportation tank used for the bulk transport of water for drinking or household purposes shall also be made on an application form provided by the department.

(3) If the department, after such investigations as it deems necessary, determines that the water transportation tank and appurtenances are in compliance with part 24 of these rules, it shall issue a license for the tank to be used for hauling water.

(4) The license issued by the department shall be kept available in the water hauling vehicle for inspection.

(5) The license is not transferable from one water transportation tank to another. In addition to the license issued by the department, there shall be displayed on both sides of the tank, in letters not less than two inches high, the words "Licensed Water Hauling Tank." Directly adjacent to the words shall be affixed a seal furnished by the department, which shall designate the calendar year of the license.

For large, approved water hauling containers, a decal will be provided by the department to satisfy the requirement for tank lettering. A seal designating the license's calendar year will be provided with the decal.

Small containers approved for water hauling must be properly identified in a manner satisfactory to the department. The method of identification will be determined at the time of the annual inspection.

R 325.12570. Expiration and renewal of licenses

Rule 2507. All licenses issued under the provisions of this part expire on the last day of June each year. Application for renewal of a license may be made after March 31 of each year.

R 325.12508. Trip records

Rule 2508. A water hauler licensed by the department shall maintain trip records of all water hauled. The water hauler shall retain trip records for two years.

Trip record forms are available at no cost from the department.

Licensed water haulers hauling drinking water solely for use at their place of business or establishment are not required to maintain trip records. Businesses and establishments of this type include taverns, restaurants, service stations, and the like.

R 325.12509. Denial of license

Rule 2509. If the department finds that water hauling equipment is not in compliance with part 24 of these rules, the department shall not issue or renew a license for the water transportation tank. If the department finds that a water hauler is not in compliance with the provisions of this part, the department shall not issue or renew the license for the water hauler. In each case, the water hauler shall be notified in writing of the license denial and the reasons for denial by the department. The water hauler may request a hearing before the department if aggrieved by the department's decision, pursuant to the provisions of Act 1969 PA 306, as amended, and part 2 of these rules.

R 325.12510. Suspension or revocation of license

Rule 2510. If the department determines that a water hauler licensed under the provisions of the act and these rules is not operating in an approved manner, is hauling water that does not meet state drinking water standards, or is operating a business or vehicles under conditions which may cause a hazard to the public health, the department shall notify the licensee and shall provide an opportunity for the water hauler to take corrective action as may be required. If the licensee does not effect the corrections within a reasonable time, the department shall suspend or revoke the license of the water hauler.

A water hauler may transport potable water for use other than for drinking or household purposes as long as the water hauled and the hauling and delivery processes do not present a potential health hazard for subsequent use of the hauling vehicle.